IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPELLANTS:	ROBERTO AYALA ET AL.	)
SERIAL NO:	09/910,544	)
FILED:	July 20, 2001	) Before the Board of
		) Appeals
FOR:	NETWORK-BASED SUPPLY	) Appeal No.
	CHAIN MANAGEMENT	)
	METHOD	)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

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APPEAL BRIEF

A Petition for Extension of Time (two months) is filed herewith.

THE REAL PARTY IN INTEREST

The real party in interest in this appeal is International Business Machines, Inc.

Ownership by International Business Machines, Inc. is established by assignment document

recorded for this application on July 20, 2001 on Reel 012052, Frame 0424.

RELATED APPEALS AND INTERFERENCES

Appellants know of no related patent applications or patents under appeal or interference

proceeding.

STATUS OF CLAIMS

Claims 51-69 are pending. Claims 51-69 stand rejected. The rejections of claims 51-69

are herein appealed.

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STATUS OF AMENDMENTS

An amendment was filed subsequent to receipt of the final office action. The amendment was filed on September 7, 2005 for the purpose of removing issues for Appeal with respect to rejections under 35 U.S.C. 112, first paragraph. An Advisory Action was issued on September 23, 2005 whereby the Examiner refused to enter the amendments.

SUMMARY OF CLAIMED SUBJECT MATTER

A concise explanation of the subject matter defined in each of the independent claims 53, 54, and 62 involved in the appeal is provided below:

Claim 53

Claim 53 recites a "method of using an MRP system to facilitate supply chain collaboration."

The method comprising "running an MRP system to generate an unconstrained forecast" (FIG. 1, central server 120; page 11 line 17 – page 12 line 3; page 12 lines 7-14; FIG. 2).

The method further comprising "running the MRP system to generate a constrained forecast, said constrained forecast taking into account at least one supplier capability statement, and said at least one supplier capability statement based on a supplier receiving said unconstrained forecast" (page 9, line 4-8; central server 120 of FIG. 1; FIG. 2).

Claim 54

Claim 54 recites "method for facilitating supply chain collaboration over a network, the supply chain including an enterprise, enterprise sites, and at least one supplier."

The method comprising "aggregating demand received, by a server of the enterprise, from enterprise sites associated with the enterprise, the demand comprising materials

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requirements common to each of the enterprise sites" (FIG. 1 enterprise site 102, central server 120; page 8 line 27-page 9 line 2; FIG. 2).

The method further comprising "generating an unconstrained forecast resulting from the aggregating" (page 9 lines 1-4; FIG. 2).

The method further comprising "transmitting the unconstrained forecast over the network to each of the suppliers that service the enterprise sites for which the unconstrained forecast is generated" (page 9 lines 1-4; FIG. 2; FIG. 1 suppliers 116, enterprise site 102).

The method further comprising "receiving supplier capability statements that are forwarded over the network by the enterprise sites, the supplier capability statements received by the enterprise sites from the corresponding suppliers in response to the transmitting" (page 9 lines 4-5; FIG. 2; FIG. 1 network "Internet", enterprise site 102, suppliers 116).

The method further comprising "generating a constrained forecast specific to each of the enterprise sites that provided a supplier capability statement" (page 9, lines 4-8; FIG. 1 enterprise site 102; FIG. 2).

The method further comprising "transmitting the constrained forecasts to the corresponding suppliers over the network" (FIG. 1 suppliers 116, network "Internet"; FIG. 2; page 9, lines 4-8).

Claim 62

Claim 62 recites a "storage medium encoded with machine-readable computer program code for facilitating supply chain collaboration over a network, the supply chain including an enterprise, enterprise sites, and at least one supplier, the storage medium including instructions for causing a computer to implement a method."

The method comprising "aggregating demand received, by a server of the enterprise, from enterprise sites associated with the enterprise, the demand comprising materials

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requirements common to each of the enterprise sites" (FIG. 1 enterprise site 102, central server 120; page 8 line 27-page 9 line 2; FIG. 2).

The method further comprising "generating an unconstrained forecast resulting from the aggregating" (page 9 lines 1-4; FIG. 2).

The method further comprising "transmitting the unconstrained forecast over the network to each of the suppliers that service the enterprise sites for which the unconstrained forecast is generated" (page 9 lines 1-4; FIG. 2; FIG. 1 suppliers 116, enterprise site 102).

The method further comprising "receiving supplier capability statements that are forwarded over the network by the enterprise sites, the supplier capability statements received by the enterprise sites from the corresponding suppliers in response to the transmitting" (page 9 lines 4-5; FIG. 2; FIG. 1 network "Internet", enterprise site 102, suppliers 116).

The method further comprising "generating a constrained forecast specific to each of the enterprise sites that provided a supplier capability statement" (page 9, lines 4-8; FIG. 1 enterprise site 102; FIG. 2).

The method further comprising "transmitting the constrained forecasts to the corresponding suppliers over the network" (FIG. 1 suppliers 116, network "Internet"; FIG. 2; page 9, lines 4-8).

The above exemplary embodiments are discussed with respect to the aforementioned independent claims by way of example only and are not intended to in any way limit the scope of these claims.

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 51-69 have been rejected under 35 U.S.C. 112, first paragraph as allegedly failing to comply with the written description requirement. The claims allegedly contain subject matter that was not described in the specification in such a way as to reasonably convey to one skilled in

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the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. The rejection of claims 51-69 as allegedly failing to comply with the written description requirement is to be reviewed on appeal.

Claims 51-69 have been rejected under 35 U.S.C. 103(a) as being allegedly unpatentable over Lidow. The rejection of claims 51-69 as being allegedly unpatentable over Lidow is to be reviewed on appeal.

ARGUMENT

Claims 51-69 have been rejected under 35 U.S.C. 112, first paragraph as allegedly failing to comply with the written description requirement. The Examiner states with respect to claims claims 54 and 62, that the Appellants' disclosure does not recite receiving supplier capability statements by enterprise sites and forwarding the supplier capability statements by the sites. Accordingly, in response to the Final Office Action, the Appellants amended claims 54 and 62 to recite "aggregating demand received at a server of the enterprise, from *a group at each of the enterprise sites* associated with the enterprise, the demand comprising materials requirements *common to the group...*receiving supplier capability statements over the network, the supplier capability statements *received by the group* at each of the enterprise sites from corresponding suppliers in response to the transmitting." Support for these amendments may be found throughout the specification and drawings, and in particular, to page 11, lines 23-26 which states "[t]he unconstrained forecast represents an aggregated demand or projected forecast *received from a particular group which may be scattered among a plurality of enterprise site locations.*" Support may also be found on page 12, lines 1-3 which states that the unconstrained forecast is "aggregated and provided to each supplier at the business enterprise group level to which each supplier will respond with a supply capability statement" and on page 12, lines 14-16 which states that "suppliers provide their supply capability responses for the unconstrained forecast *to the originating group* via the web."

The Examiner also states with respect to claims 54 and 62, that the Appellants' disclosure does not show a constrained forecast is generated which is "specific to each of the enterprise sites". The Examiner then states that the specification contemplates a forecast *specific to a group* that may be distributed over several sites. Accordingly, in response to the Final Office Action, the Appellants amended claims 54 and 62 to recite "generating a constrained forecast;

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and transmitting the constrained forecasts to suppliers at the enterprise site level over the network." Support for this amendment may be found throughout the specification and drawings, and in particular, on page 9, lines 4-8 which states "[r]esponses received by these suppliers are further exploited by server 120 resulting in the generation of a constrained forecast which is *transmitted to suppliers at the individual site level*" and on page 12, lines 14-16, which states "suppliers provide their supply capability responses for the unconstrained forecast to the originating group via the web."

With respect to claims 56 and 64, the Examiner states that the Appellants' disclosure does not provide support for the limitation "exploding the aggregated demand into time-bucketed materials requirements *for each enterprise site.*" The Examiner then states that the disclosure shows that "the unconstrained forecast is made *for the group as a whole*" (Final Office Action dated June 17, 2005, page 3). Accordingly, in response to the Final Office Action, the Appellants amended claims 56 and 64 in accordance with the Examiner's comments to recite "exploding the aggregated demand into time-bucketed materials requirements *at a group level.*" Support may be found throughout the specification and drawings, and in particular, on page 11, lines 23-26, which states "[t]he unconstrained forecast represents an aggregated demand or projected forecast received from a particular group which may scattered among a plurality of enterprise site locations" and also on page 12, lines 7-10, which states "[a]n unconstrained forecast includes the aggregated customer demand exploded into time-bucketed materials requirements."

With respect to claims 58 and 66, the Examiner states that the Appellants disclosure does not provide that the supply capability statements include the greatest amount of material each supplier can make available for corresponding enterprise sites. Accordingly, in response to the Final Office Action, the Appellants amended claims 58 and 66 to recite "the supplier capability statements include a greatest amount of materials each of the suppliers is able to make available *to the group.*" Support may be found throughout the specification and the drawings, and in particular, on page 12, lines 14-19.

The Examiner refused to enter these amendments, which were timely filed and presented by the Appellants in order to address the rejections raised under 35 U.S.C. 112, first paragraph. Accordingly, these amendments were proper for entry. Clear error exists in the Examiner's refusal to enter these amendments.

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Claims 51, 52, 55, 57, and 59-61 depend from claim 54. Claims 63, 65, and 67-69 depend from claim 62. Claims 51, 52, 55, 57, 69-61, 63, 65, and 67-69 were rejected due to their dependencies on claims 54 and 62. For at least these reasons, the rejections of claims 51-69 under 35 U.S.C. 112, first paragraph is improper.

Claims 51-69 have been rejected under 35 U.S.C. 103(a) as being allegedly unpatentable over Lidow. With respect to Claims 54 and 62, the Examiner states that Lidow teaches or makes obvious a collaboration process implemented between a single enterprise and its suppliers. In fact, Lidow teaches a supply chain server that executes modules for implementing supply chain processes on behalf of a plurality of customers and suppliers.

Moreover, Lidow does not teach or make obvious the two-phased collaboration process as recited in claims 54 and 62, namely, transmitting an unconstrained forecast to suppliers followed by the constrained forecast to the appropriate suppliers. As recited in claims 54 and 62, an unconstrained forecast for multiple enterprise sites is transmitted to suppliers and supplier capabilities are determined. Based upon this determination, a constrained forecast is generated for each enterprise site and transmitted to each of the suppliers that are capable of satisfying the demand. In contrast, Lidow does not distinguish between constrained and unconstrained forecasts. Rather, Lidow teaches that a consolidated demand file, which appears to be an aggregation of each customer's *constrained forecast*, is provided to suppliers (i.e., Lidow teaches a single phase process)(emphasis added). Support for this may be found in paragraphs 0149-0165 and 0180, as well as Figures 6, 7, and 10A. Specifically, Lidow teaches a planning module executed by the supply chain server that manages forecasts received by customers and "the demands are consolidated, translated into supplier part numbers, and transformed into specific supplier requirements" (par. 0152). The supply chain server performs rough cut capacity matching that assigns demand to suppliers and tests to see if this assignment of demand falls within the supply capacity constraints given by the suppliers. Demand in excess of the supplier's capacity constraints is re-assigned by supply chain server to another supplier (par. 0154). If there are no demand issues, the process proceeds to the Procurement module (par. 0162) whereby a supply demand is sent to the appropriate supplier (par. 0180). Thus, the teachings of Lidow do not include a second phase of the collaboration process and further suggest that the demand processes described with respect to the Planning module above relate to

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a constrained forecast since the absence of any demand issues results in the demand proceeding to the Procurement module and the supplier for fulfillment. Contrary to Lidow, Appellants' claims 54 and 62 recite an unconstrained forecast and supplier capability statements that are used in generating the constrained forecast. The constrained forecast is then transmitted to the suppliers.

Further, Lidow does not teach or suggest a collaboration process that utilizes a combination of communications that include direct transmissions between the supplier and the customer as provided in claims 54 and 62, namely, the supplier capability statements received by the enterprise sites from the corresponding suppliers. For at least these reasons, claims 54 and 62 patentably define over Lidow.

Claims 51, 52, and 55-61 depend from what should be an allowable claim 54. Claims 63-69 depend from what is believed to be an allowable claim 62. For at least these reasons, claims 51, 52, 55-61, and 63-69 patentably define over Lidow.

With respect to Appellants' claim 53, the Examiner states that claim 53 is unpatentable in view of Lidow because Lidow allegedly includes all of the elements of claim 53 except the MRP system. The Examiner states that it would have been obvious to one of ordinary skill in the arts to modify the Lidow by using an MRP system to generate the forecasts in order to provide for more efficient use of resources. As indicated above with respect to claims 54 and 62, Lidow does not teach or make obvious a two-phase process including generating and unconstrained forecast followed by an unconstrained forecast in the manner recited in claims 54 and 62. Further, the Examiner concedes that Lidow does not teach an MRP system. Accordingly, Lidow does not teach or make obvious the Appellants' claim 53 as suggested by the Examiner. For at least this reason, claim 53 patentably defines over Lidow.

EVIDENCE APPENDIX

None

RELATED PROCEEDINGS APPENDIX

None

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CONCLUSION

In view of the foregoing, it is urged that the final rejection of claims 53-69 be overturned. The final rejection is in error and should be reversed. The fee set forth in 37 CFR 41.20(b)(2) is enclosed herewith. If there are any additional charges with respect to this Appeal Brief, or otherwise, please charge them to Deposit Account No. 50-0510.

Respectfully submitted,

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CLAIM APPENDIX

1-13   (Canceled).

14.   (Withdrawn) The method of claim 1, further comprising:

monitoring inventory levels at a replenishment service center by said at least one supplier based upon said formal commitment;

refilling inventory items at said replenishment service center according to said formal commitment;

facilitating delivery of said inventory items to a site location for said enterprise by transmitting a pull signal to said replenishment service center; and

receiving said inventory items in response to said pull signal.

15.   (Withdrawn) The method of claim 14, wherein said monitoring said inventory levels at said replenishment service center includes providing said site location for said enterprise, said at least one supplier, and said replenishment service center a visibility of said inventory materials in transit.

16.   (Withdrawn) The method of claim 14, wherein said monitoring said inventory levels by said at least one supplier includes maintaining a minimum supply level.

17.   (Withdrawn) The method of claim 16, wherein said minimum supply level is measured in days of supply at said replenishment service center.

18.   (Withdrawn) The method of claim 17, wherein said days of supply is calculated by rationalizing current units of inventory against expected consumption.

19.   (Withdrawn) The method of claim 18, wherein said expected consumption represents said constrained forecast.

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20.   (Withdrawn) The method of claim 14, wherein said monitoring said inventory levels is performed by accessing an inventory status provided by said replenishment service center.

21.   (Withdrawn) The method of claim 14, wherein said site location for said enterprise monitors said inventory levels.

22.   (Withdrawn) The method of claim 14, wherein said refilling said inventory items includes:

providing an advance ship notice to said replenishment service center and said site location for said enterprise; and

updating a database to indicate when said inventory items are shipped.

23.   (Withdrawn) The method of claim 14, wherein said transmitting said pull signal to said replenishment service center includes providing a pull request number to said replenishment service center requesting delivery of said inventory items, wherein a transfer order is generated at said replenishment service center in response to said pull signal.

24.   (Withdrawn) The method of claim 23, wherein a goods issued document is created in response to preparing said inventory items for delivery, said goods issued document including said pull request number.

25.   (Withdrawn) The method of claim 24, wherein a goods receipt is generated upon delivery of said inventory items, said goods receipt associated with said pull request number.

26-38. (Canceled)

39.   (Withdrawn) The storage medium of claim 26, further comprising instructions for causing a computer to implement:

monitoring inventory levels at a replenishment service center by said at least one supplier based upon said formal commitment;

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refilling inventory items at said replenishment service center according to said formal commitment;

facilitating delivery of said inventory items to a site location for said enterprise by transmitting a pull signal to said replenishment service center; and

receiving said inventory items in response to said pull signal.

40.   (Withdrawn) The storage medium of claim 39, wherein said monitoring said inventory levels at said replenishment service center includes providing said site location for said enterprise, said at least one supplier, and said replenishment service center a visibility of said inventory materials in transit.

41.   (Withdrawn) The storage medium of claim 39, wherein said monitoring said inventory levels by said at least one supplier includes maintaining a minimum supply level.

42.   (Withdrawn) The storage medium of claim 41, wherein said minimum supply level is measured in days of supply at said replenishment service center.

43.   (Withdrawn) The storage medium of claim 42, wherein said days of supply is calculated by rationalizing current units of inventory against expected consumption.

44.   (Withdrawn) The storage medium of claim 43, wherein said expected consumption represents said constrained forecast.

45.   (Withdrawn) The storage medium of claim 39, wherein said monitoring said inventory levels is performed by accessing an inventory status provided by said replenishment service center.

46.   (Withdrawn) The storage medium of claim 39, wherein said site location for said enterprise monitors said inventory levels.

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47.   (Withdrawn) The storage medium of claim 39, wherein said refilling said inventory items includes:

providing an advance ship notice to said replenishment service center and said site location for said enterprise; and

updating a database to indicate when said inventory items are shipped.

48.   (Withdrawn) The storage medium of claim 39, wherein said transmitting said pull signal to said replenishment service center includes providing a pull request number to said replenishment service center requesting delivery of said inventory items, wherein a transfer order is generated at said replenishment service center in response to said pull signal.

49.   (Withdrawn) The storage medium of claim 48, wherein a goods issued document is created in response to preparing said inventory items for delivery, said goods issued document including said pull request number.

50.   (Withdrawn) The storage medium of claim 49, wherein a goods receipt is generated upon delivery of said inventory items, said goods receipt associated with said pull request number.

51.   A method as recited in claim 54 further comprising:
receiving, from said at least one supplier, a formal commitment to produce a needed supply indicated in said constrained forecast.

52.   A method as recited in claim 54 further comprising:
receiving, from said at least one supplier, a communication when said at least one supplier is unable to produce a needed supply indicated in said constrained forecast.

53.   A method of using an MRP system to facilitate supply chain collaboration comprising:
running an MRP system to generate an unconstrained forecast; and

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running the MRP system to generate a constrained forecast, said constrained forecast taking into account at least one supplier capability statement, and said at least one supplier capability statement based on a supplier receiving said unconstrained forecast.

54.   A method for facilitating supply chain collaboration over a network, the supply chain including an enterprise, enterprise sites, and at least one supplier, the method comprising:

aggregating demand received, by a server of the enterprise, from enterprise sites associated with the enterprise, the demand comprising materials requirements common to each of the enterprise sites;

generating an unconstrained forecast resulting from the aggregating;

transmitting the unconstrained forecast over the network to each of the suppliers that service the enterprise sites for which the unconstrained forecast is generated;

receiving supplier capability statements that are forwarded over the network by the enterprise sites, the supplier capability statements received by the enterprise sites from the corresponding suppliers in response to the transmitting;

generating a constrained forecast specific to each of the enterprise sites that provided a supplier capability statement; and

transmitting the constrained forecasts to the corresponding suppliers over the network.

55.   The method of claim 54, wherein the unconstrained forecast is generated via a centralized material resource planning engine at the enterprise.

56.   The method of claim 54, wherein generating the unconstrained forecast includes exploding the aggregated demand into time-bucketed materials requirements for each enterprise site.

57.   The method of claim 54, wherein the unconstrained forecast is transmitted to each of the suppliers via the world wide web.

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58.   The method of claim 54, wherein the supplier capability statements include a greatest amount of materials each of the suppliers is able to make available to corresponding enterprise sites.

59.   The method of claim 54, wherein the generating a constrained forecast includes:
        inputting the supplier capability statements into a centralized constraint-based optimization tool at the server, the centralized constraint-based optimization tool performing squared set analysis and applying capacity constraints;
        producing a squared set build plan from results of the squared set analysis; and
        inputting the squared set build plan into a materials resource planning tool for processing, the results of the processing used in generating the constrained forecast.

60.   The method of claim 59, wherein squared sets resulting from the squared set analysis include an exploded demand including optimized volumes.

61.   The method of claim 59, wherein the performing squared set analysis further comprises imploding component data, tracing the component data through a manufacturing cycle up to a final product while factoring in at least one of constraints and business rules.

62.   A storage medium encoded with machine-readable computer program code for facilitating supply chain collaboration over a network, the supply chain including an enterprise, enterprise sites, and at least one supplier, the storage medium including instructions for causing a computer to implement a method comprising:
        aggregating demand received, by a server of the enterprise, from enterprise sites associated with the enterprise, the demand comprising materials requirements common to each of the enterprise sites;
        generating an unconstrained forecast resulting from the aggregating;
        transmitting the unconstrained forecast over the network to each of the suppliers that service the enterprise sites for which the unconstrained forecast is generated;

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receiving supplier capability statements that are forwarded over the network by the enterprise sites, the supplier capability statements received by the enterprise sites from the corresponding suppliers in response to the transmitting;

generating a constrained forecast specific to each of the enterprise sites that provided a supplier capability statement; and

transmitting the constrained forecasts to the corresponding suppliers over the network.

63.   The storage medium of claim 62, wherein the unconstrained forecast is generated via a centralized material resource planning engine at the enterprise.

64.   The storage medium of claim 62, wherein generating the unconstrained forecast includes exploding the aggregated demand into time-bucketed materials requirements for each enterprise site.

65.   The storage medium of claim 62, wherein the unconstrained forecast is transmitted to each of the suppliers via the world wide web.

66.   The storage medium of claim 62, wherein the supplier capability statements include a greatest amount of materials each of the suppliers is able to make available to corresponding enterprise sites.

67.   The storage medium of claim 62, wherein the generating a constrained forecast includes:
inputting the supplier capability statements into a centralized constraint-based optimization tool at the server, the centralized constraint-based optimization tool performing squared set analysis and applying capacity constraints;

producing a squared set build plan from results of the squared set analysis; and

inputting the squared set build plan into a materials resource planning tool for processing, the results of the processing used in generating the constrained forecast.

68.   The storage medium of claim 67, wherein squared sets resulting from the squared set analysis include an exploded demand including optimized volumes.

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69.   The storage medium of claim 67, wherein the performing squared set analysis further comprises imploding component data, tracing the component data through a manufacturing cycle up to a final product while factoring in at least one of constraints and business rules.

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